NO. 44.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

July 16 to 31, 1910.

NEW PLANT IMMIGRANTS.

ACACIA SP. (Mimosaceae.) 28550. From Pretoria, Transvaal, South Africa. Presented by Prof. J. Burtt-Davy, Government Agrostologist and Botanist. For distribution later.

BAMBOS ARUNDINACEA. (Poaceae.) 28369. From Sibpur, Calcutta, India, Purchased from Maj. A. T. Gage, Superintendent, Royal Botanic Garden. "This bamboo does not spread rapidly and it is seldom necessary to keep the plant in check. It never becomes a troublesome weed and it can be extirpated without difficulty if desired." (Gage.) See No. 21317 for further description. For distribution later.

CARICA PAPAYA. (Papayaceae.) 28533-536. From Empire, Canal Zone, Panama. Presented by Mr. W. G. Ross at the request of Mr. H. F. Schultz. Notes by Mr. Ross. No. 28533. "Fruit cylindrical in shape, very rich flavor; heaviest down here, weighing 16½ lbs." "This variety has a very small seed cavity and less seeds than most others." (H. F. Schultz.) No. 28534. "Fruit oblong in shape, extra size, 10½ lbs., and excellent flavor." No. 28535. "Fruit oblong and slightly tapering in shape, above medium in size, and having very sweet meat." No. 28536. "Fruit pear-shaped. Tree was planted 3 years ago and produced 30 papayas last year, all very large and of very fine flavor." For distribution later.

LATHYRUS SP. (Fabaceae.) 28367. From Marash, Turkey. Purchased from Mr. Paul N. Nersessian. "Agh jilban (white jilban.) These plants are not cultivated for green manuring but only for the seeds, which are used for cattle feed." (Nersessian.) For immediate distribution.

MANGIFERA INDICA. (Anacardiaceae.) 28551. Var. Sierra Leone. From Monrovia, Liberia, West Africa. Presented by Mr. E. L. Parker, Commissioner of Agriculture. For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28552-555. From Poona, Bombay, India. Purchased from Mr. P. S. Kanetkar, Superintendent, Empress Botanical Gardens. Four varieties as follows: Alphonse, Kadarapasant, Pakria and Totafari. For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28556-563. From Sibpur, Calcutta, India. Purchased from Maj. A. T. Gage, Super-

intendent, Royal Botanic Garden. Eight varieties as follows: Alphonse, Baromassia, Bhadoorea, Large Malda, Small Malda, Paranay, Peters and Soondershaw. For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28564-568. From Colombo, Ceylon. Purchased from Dr. C. Drieberg, Secretary, Ceylon Agricultural Society. Seeds of five varieties. Notes by Dr. Drieberg. No. 28564. "Dampara. Prolific; fruit small in size, of second quality, rather fibrous; skin yellow-brown; seed small; ripens early and keeps fairly well. The tree is a free grower and is hardy. It is not much cultivated." No. 28565. "Heart. This is also called Bombay, and is the commonest variety found on the market. Prolific; fruit medium in size, not much longer than broad, of second quality; skin golden yellow; seed of medium size; ripens early and is a fair keeper. The tree is a free grower and is hardy." No. 28566. "Jaffna. The favorite variety here. Prolific; fruit medium in size, twice as long as broad, of first quality; skin green; seed of medium size; ripens early and is a fair keeper. The tree is a fairly free grower and is hardy." No. 28567. "Parrot. Fairly prolific; fruit medium to small, of second quality; ripens late and is a fair keeper; skin dark green; seed of medium size. This variety has a slight turpentine flavor and is not very common." No. 28568. "Rupee. This is also called 'two shilling'. It is a sparse bearer; fruit the largest of the Ceylon varieties and of first quality; skin pale green; seed small compared to size of fruit; ripens late and is not a good keeper. The tree is not a free grower and is tender. This variety is scarce and expensive. Requires very careful ripening." For distribution later.

MUSA SPP. (Musaceae.) 28569-582. Fourteen varieties of banana from Paramaribo, Suriname, Dutch Guiana. Presented by Mr. Goldsmith H. Williams, Manager Suriname Division, United Fruit Co. Notes by Mr. Williams. No. 28569. "Bas Joe. From Southern China. Has seeds in very small fruit." No. 28570. "Cinerea Sahramphur. Short, slim, pointed fruit of good flavor." No. 28571. "Congo." No. 28572. "Dwarf banana, frequently called Cavendishii." No. 28573. "Jamaica banana." No. 28574. "Large Horse banana. Sweeter than the plantain. Very good fried or roasted." No. 28575. "Pisang Ambon. A trifle better than Horse banana of Florida and much the same shape." No. 28576. "Pisang Celat. Small, sweet fruit with 13 to 16 hands on a bunch." No. 28577. "Pisang Kudjo. Red banana." No. 28578. "Pisang Siam. Much like Horse banana of Florida." No. 28579. "Pisang Susa. Similar to ordinary Apple banana." No. 28580. "Rubra India Sapientum Dacca. One of the silver skin varieties. What we term silver skin is a

fruit that is like the Red banana in shape and flavor, but with a clear yellow skin." No. 28581. "Variety Chittagong. Very small, with seeds." No. 28582. "Reddish leaves. Very small, worthless fruit, with seeds. Good as an ornamental plant." For distribution later.

SISYRINCHIUM BERMUDIANA. (Iridaceae.) 28361-362. Two varieties, one blue fruited, and one white fruited, from Port Louis, Mauritius. Presented by Mr. G. Regnard. For distribution later.

TERMINALIA BELLERICA. (Combretaceae.) 28329. From Kandawglay, Rangoon, Burma, India. Presented by the Secretary of the Agri-horticultural Society of Burma. "A handsome tree, native in Southern Asia, the fruit of which, collected when full grown but still unripe and dried in the sun, forms the Beleric myrobalans of commerce. These fruits contain about 12 per cent of tannin, but as a tanning material these fruits are inferior to the fruits of the following species." (W. W. Stockberger.) For distribution later.

TERMINALIA CHEBULA. (Combretaceae.) 28330. From the same source as the preceding number. "A large, deciduous tree, occurring chiefly on the mountains of India, occasionly as high as 5,000 feet in the Himalayas. The fruits, known as Chebulic myrobalans, are extensively used in tanning. They yield from 30 to 40 per cent tannin, found chiefly in the pulp surrounding the kernel. Seedlings grown at Chattanooga, Tenn., were cut down by frost." (W. W. Stockberger.) For distribution later.

TERMINALIA CHEBULA. (Combretaceae.) 28354. From Baroda, India. Presented by Mr. B. S. Cavanagh, Superintendent, State Gardens. For distribution later.

TRICHOLAENA ROSEA. (Poaceae.) 28537. From Benguella, Angola, Portuguese West Africa. Presented by Mr. T. W. Woodside. "A grass that grows spontaneously in old, worn-out fields. Grows often to a height of 2½ or 3 feet. Is very succulent and sweet; cattle like it very much. From the fact that it grows in old, abandoned fields, I would judge that it does not require rich soil." (Woodside.) For distribution later.

TRITICUM SP. (Poaceae.) 28365. Wheat from near the shore of Lake Van, and a few miles from Bitlis, Turkey, Asia. Presented by Mr. Hamilton King, American Minister to Siam, who procured it from Miss Mary A. C. Ely. "This is sown in drills and does not need to be irrigated. The soil is sandy, mixed

with volcanic ashes, and probably some moisture percolates from the near lake. This is a rather inferior sample." (Ely.) For distribution later.

UNDETERMINED. 27520. From Pretoria, Transvaal, South Africa. Presented by Prof. J. Burtt-Davy. "This plant is said to be much eaten by ostriches, as well as by other stock, including horses. One farmer claims that it is preferred to lucerne, and that it keeps green and grows through the dry winter. It is a perennial and prefers freshly turned, rather moist, sandy soil. It is widely distributed over the Eastern Transvaal, from Pretoria eastward at an altitude of 4,700 to 5,500 feet, with a rainfall of 26 to 33 inches, falling only in summer." (Davy.) For distribution later.

VICIA ERVILIA. (Fabaceae.) 28368. From Marash, Turkey. Purchased from Mr. Paul N. Nersessian. "Koushne. These plants are not cultivated for green manure but only for seeds, which are used for cattle feed. It is sown here from about the middle of September until toward the end of November. Usually it is sown on poor or exhausted fields, from which a good crop of grain cannot be expected. Of course, it does better in richer ground and especially in ground where potash predominates. It likes the ground well drained, either naturally or artificially." (Nersessian.) For distribution later.

VICIA FABA. (Fabaceae.) 28345. From Dongola Province, Egypt. Presented by Mr. S. E. Durant, Inspector of Agriculture. "This grain is never used for stock feed, but it is ground into flour, mixed with wheat flour, and made into bread. The straw is fed to stock, the only preparation being that the grain is first threshed out by hand. The natives do not consider that bean straw forms such a valuable fodder as that of wheat." (Durant.) For distribution later.

NOTES FROM FOREIGN CORRESPONDENTS.

AFRICA, Zomba, Nyasaland Protectorate. Agricultural and Forestry Department, June 16. Sends seeds and photographs of Mlanje cypress.

CHILE, Limavida. Mr. Jose D. Husbands, June 30. Says there are very many plants in Chile that have never been described by botanists. He has discovered several new things, among them three new kinds of oaks and distinct varieties of Edwardsia chilensis, Tropaeolum tuberosum, Maitenus chilensis and Aristotelia macqui.

TURKESTAN. MR. FRANK N. MEYER, AGRICULTURAL EXPLORER.

Was in Merv June 12. Says there is a pretty park there where tall specimens of poplar occur (Populus alba pyramidalis). He also saw there for the first time some fine, large specimens of the karakach (Ulmus campestris umbraculifera). They are very striking trees with their umbrella like shape and dense mass of foliage. They will be highly appreciated by settlers in desert regions. Other trees in this park are Acer negundo, Robinia pseud-acacia, Sophora japonica, Ailanthus glandulosa, Gleditsia triacanthos, Salix babylonica, Toxylon pomiferum, Catalpa bignonioides, Morus alba, Cydonia vulgaris, Prunus armeniaca and Pyrus communis. On June 13, there was a great market held in Merv. There were present Turcomans, Afghanistanese, Kirghisians and many other wild looking inhabitants of these regions. The products, such as fruits and vegetables, were mostly very poor. There is a German colony 30 versts northeast of Merv. Here he went to see cotton and alfalfa culture at the edge of the desert. Describes in some detail the method of cultivating these crops. In the desert around Merv there are tens of thousands of acres of land covered with camel's thorn (Alhagi camelorum). Its small, pinkish-purple flowers give color to the landscape as the heath in Northwest Europe does. This plant is very useful, being used as food for the camels, mown and used for fuel and as a sandbinder. It grows in pure, sterile sand, and being leguminous, enriches the soil. There are many canals around Merv, some of them said to be 3,000 years old. Large new canals are being dug, and it is hoped to bring much of the desert under cultivation. On June 15, he visited the Imperial Estate of Murgab. The apricot trees were heavily loaded. Some varieties of apricots, pears and quinces seemed out of the ordinary, and he will send scions. Visited Mr. W. A. Palletsky, in charge of sandbinding work along the railroad in Central Asia. It is most interesting to see how tall bushes of Calligonum caput-medusae, C. arborescens, Salsola richteri and Haloxylon ammodendron (saxaul), have grown into a sort of forest in a soil that is almost pure sand, and moving sand at that. And even a few seeds of the Chinese tree of heaven (Ailanthus glandulosa) have lodged between these real desert plants and grown vigorously to a fairly good size. The saxaul will not grow on shifting sand. To arrest a shifting sand hill various Calligonums, the Salsola richteri, and after that saxaul are planted. There are an immense number of Calligonums; up to the present 57 species have been found, of which only 30 have been scientifically determined. Visited the nursery where the young plants are raised and describes the method of getting the plants started in the shifting sand. Hedges of Tamarix and the wild form of Elaeagnus angustifolia

are used to keep the high winds off. Mr. Palletsky gave him seed of the sandbinding plants and promised to send in the autumn, seeds of the best 12 melons from around Chartchui (a region noted for its melons), cuttings of the very promising Populus pruinosa, an extremely drought resistant, ornamental tree and a pood of genuine Khiva alfalfa seed, a variety said to be better and more vigorous than the ordinary Central Asian kinds. Mr. Meyer is just on the point of starting for a two or three months' trip in the Hissar Mountains, where he hopes to collect valuable material.

RECENT VISITORS.

CALIFORNIA, San Rafael Ranch, Garvanza. Mr. Augustine Campbell Johnston. Mr. Johnston is especially interested in irises.

CANARY ISLANDS, Teneriffe. Mr. Solomon Berliner, American Consul at Teneriffe called at the office and gave an interesting account of the growing of onion seed in the neighborhood of Teneriffe. This has developed into a very important industry there.

CHINA, Tai Ming Fu. Mr. Horace W. Hoalding, Missionary at Tai Ming Fu. He will send any plants we desire from there, and will try especially to get the big peach growing near Feitcheng, one of his stations, and also some very large pears that grow in that section.

PENNSYLVANIA. Mr. Morris C. Betts, Architectural Editor of the Ladies' Home Journal, is inspecting Washington gardens in the interests of the Journal.

PHILIPPINE ISLANDS, Manila. Mr. Wm. Foxworthy, Botanist of the Bureau of Science, offers to send us plants from the Philippines.

Mangifera indica, mango.

Seedling mango tree growing on the estate of Mrs. J. Todd Cook, at Hollywood, California. This tree was raised from seed of a fruit purchased in the Los Angeles market.